



# Environmental Bulletin

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*from the Savannah River Site*

## Explanation of Significant Difference for the P-Area Reactor Seepage Basin

This Explanation of Significant Difference (ESD) is being issued by the United States Department of Energy (DOE), with concurrence by the United States Environmental Protection Agency-Region IV (EPA) and South Carolina Department of Health and Environmental Control (SCDHEC) to document the decision that the P-Area Reactor Seepage Basin (PRSB) meets the criteria specified in the Plug-in Record of Decision (ROD). The detailed determination of how this unit meets the criteria is in the Technical Evaluation Report available in the Administrative Record File as noted in the locations identified below.

The PRSB is located in the central portion of the Savannah River Site (SRS), approximately 800 feet west of P-Reactor. The PRSB, consisting of three connected basins and the associated pipeline, received low-level radioactive wastewater from 1959 to 1986.

The PRSB meets the criteria specified in the Plug-In ROD for using the plug-in remedy. The criteria are: (1) is radioactively contaminated, (2) is near a nuclear facility, (3) contains principal threat source material (PTSM), and (4) the PTSM is not in contact with groundwater or surface water.

The remedy includes the following components:

- Stabilizing the PTSM soils to the depth of 2 to 10 ft in the first basin and to 4 ft in the second basin using a cement-based grout mixture. This treatment will stabilize the waste in a form less likely to result in human exposure to radionuclides.
- Placing a low permeability soil cover over all three basins. This will reduce infiltration through the stabilized soil and prevent exposure of humans or animals to radionuclides in the stabilized soil.
- Grouting the pipeline. This will prevent exposure to burrowing animals.
- Using land use controls to prevent human contact

with the stabilized PTSM soils.

This remedy will be the final remedy for this Operable Unit (OU), since the groundwater associated with this OU is being addressed in conjunction with the P-Area Reactor Groundwater OU.

The DOE is required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to publish an ESD whenever there is a significant change to a component of the remedy identified in the ROD. This ESD is unique in that it does not detail a change from a remedy selected in the ROD, but rather documents the waste unit for which the remedy will be implemented. EPA, SCDHEC and DOE have determined that using an ESD format to present the waste unit selected for implementation is a key component in communicating remedial decisions for the Plug-in ROD. This ESD is available for public review during normal business hours at the following information repositories:

- DOE Public Reading Room at the Gregg-Graniteville Library at the University of South Carolina-Aiken campus in Aiken, SC;
- Thomas Cooper Library Government Documents Department at the University of South Carolina in Columbia, SC;
- Reese Library at Augusta State University in Augusta, GA; and
- Asa H. Gordon Library at Savannah State University in Savannah, GA.

Any comments or questions may be directed to:

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